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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,553	09/19/2003	Paul Reuben Day	ROC920030174US1	4284
7590	10/18/2006		EXAMINER	
Grant A. Johnson IBM Corporation - Dept. 917 3605 Highway 52 North Rochester, MN 55901			LOHN, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2114	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/664,553	DAY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joshua A. Lohn	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 July 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 7/24/2006 have been fully considered but they are not fully persuasive.

In response to applicant's arguments on page 15, involving claim 1, that Prologo fails to provide a suggestion of sequentially applying each patch of multiple patches, the examiner agrees. However, the Prologo reference is not relied upon to disclose applying multiple patches, the limitations involving the multiple patches are provided for by Ashley. When taken in proper combination with Prologo, these patches would each provide for an environmental change, as disclosed by Prologo. The environmental changes would be applied in a sequential manner, since each change must be properly tested (Prologo, col. 4, lines 36-41).

In response to applicant's argument on pages 15 and 16, involving claim 1, that the Prologo and Ashley references do not enable, nor provide any suggestion of testing said software product responsive to each sequentially applied patch, the examiner respectfully disagrees. A proper combination of Prologo and Ashley would obviously take the patches of Ashley and apply them in a sequential manner to incrementally adjust the operating environment and properly testing for correct operation (Prologo, col. 4, lines 36-41, and Ashley, ¶71).

In response to applicant's argument on page 16, involving claim 13, that Juettner and Prologo do not enable, nor provide any suggestion of an isolation manager sequentially applying each program of said multiple programs of said PTF to said software product; and testing said software product responsive to each sequential application, and providing test results to a user, the examiner respectfully disagrees. Juettner discloses the software programs in the objects

being tested, where the objects are tested sequentially (Juettner, col. 1, line 64 through col. 2, line 13, and column 2, lines 39-40), and Prologo discloses the user notification (Prologo, col. 5, lines 57-59), the details are disclosed in the rejection below.

In response to applicant's argument on pages 16 and 17, involving claim 21, these are similar to the issues raised involving claim 13, and the same response applies here as well. All dependent claims remain rejected, the details of the rejections are provided below.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prologo et al. (U.S. Patent No. 6,823,478) in view of Ashley et al. (2004/0088142).

As per claims 1 and 21, Prologo discloses a method for implementing autonomic testing and verification of software fix programs comprising the steps of:

receiving a software fix program (column 1, lines 44-49; Note: the environment changes represent the software fix program);

sequentially applying each patch of said software fix program to a software product (column 4, lines 36-41; Note: it is understood that if each change to the environment is tested in this manner, they are applied sequentially); and

testing said software product responsive to each said sequentially applied patch (column 1, line 60- column 2, line 12);

providing test results to a user responsive to said testing of said software product (column 5, lines 57-59).

Prologo fails to disclose a method where the software fix program comes with multiple patches although Prologo does disclose a method where each environment change (patch) is tested (column 4, lines 36-41).

Ashley discloses a method comprising:

said software fix program including multiple patches (paragraph 71; Note: the patch bundle represents the software fix program).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the patch bundle described by Ashley in the method described by Prologo. It would have been obvious because a remote server may need to send more than one patch/environment change at a given time (paragraph 71).

As per claim 2, Ashley discloses a method for implementing autonomic testing and verification of software fix programs wherein said software fix program includes a program temporary fix (PTF);

said PTF including multiple patches or programs (paragraph 71).

Claims 3-5 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prologo in view of Ashley as applied to claims 1 and 2 above, and further in view of Juettner et al. (U.S. Patent No. 5,615,333).

Prologo and Ashley are relied upon for reasons stated in the previous section.

Prologo and Ashley fail to disclose an isolation manager.

Juettner discloses a method for implementing autonomic testing and verification of software fix programs including the step of providing an isolation manager for receiving Said PTF and for sequentially applying each patch or program of said multiple patches or programs of said PTF to said software product (column 1, line 64- column 2, line 13; column 2, lines 39-40; Note: In this integration technique, each object (or subprogram) is integrated sequentially and then tested. The PTF is represented by the all the objects presented together before they have been integrated).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the integration technique as disclosed by Juettner in the method disclosed by Prologo and Ashley. It would have been obvious because integration testing allows for testing how the program parts will interact when each part is integrated (column 3, line 39-40).

As per claim 4, Prologo discloses a method for implementing autonomic testing and verification of software fix programs includes the step of providing a user interface coupled to said isolation manager for receiving user input selections and reporting results to the user (column 2, lines 45-47; column 6, lines 4-34).

As per claim 5, Ashley discloses a method for implementing autonomic testing and verification of software fix programs wherein the step of receiving said software fix program including said program temporary fix (PTF) includes receiving a set of PTFs, each said PTF

containing multiple patches or programs (paragraph 71, where the set of patches act as the PTFs).

Prologo and Ashley fail to disclose a method where each patch is sequentially applied to the software product (column 1, line 64- column 2, line 13; column 2, lines 39-40).

Juettner discloses a method wherein each patch or program contained in said group of PTFs is sequentially applied to said software product.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the integration technique as disclosed by Juettner in the method disclosed by Prologo and Ashley: It would have been obvious because integration testing allows for testing how the program parts will interact when each part is integrated (column 3, line 39-40).

As per claim 8, Prologo and Ashley fail to disclose an isolation manager.

Juettner discloses a method for implementing autonomic testing and verification of software fix programs includes providing an isolation manager for receiving said software fix program including said program temporary fix (PTF) and for sequentially applying each patch or program of said multiple patches or programs of said software fix program or said program temporary fix (PTF) to said software product; and wherein a test program and expected test results are input to the isolation manager; said isolation manager sequentially applies iterations of each patch or program of the multiple patches or programs of said software fix program or said program temporary fix (PTF) and different combinations of the patches or programs to the software product and calls the test program for each applied iteration to the software product (column 1, line 64-column 2, line 13; column 2, lines 39-40; Note: In this integration technique,

each object (or subprogram) is integrated sequentially and then tested. The PTF is represented by all the objects presented together before they have been integrated).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the integration technique as disclosed by Juettner in the method disclosed by Prologo and Ashley. It would have been obvious because integration testing allows for testing how the program parts will interact when each part is integrated (column 3, line 39-40).

As per claim 9, Prologo discloses a method for implementing autonomic testing and verification of software fix programs wherein said isolation manager compares test results with the expected test results for each applied iteration (column 1, line 60-column 2, line 12) and notifies the user when the test results are different from the expected test results (column 5, lines 64-67; Note: using email is a way to display the results to the user).

As per claim 10, Prologo and Ashley fail to disclose an isolation manager.

Juettner discloses a method for implementing autonomic testing and verification of software fix programs includes providing an isolation manager for receiving said software fix program including said program temporary fix (PTF) and for sequentially applying each patch or program of said multiple patches or programs of said software fix program or said program temporary fix (PTF) to said software product; and wherein a test program is input to the isolation manager; said isolation manager sequentially applies iterations of each patch or program of the multiple patches or programs of said software fix program or said program temporary fix (PTF) and different combinations of said patches or programs to the software product and calls the test program for each applied iteration to the software product (column 1, line 64- column 2, line 13;

column 2, lines 39-40; Note: In this integration technique, each object (or subprogram) is integrated sequentially and then tested. The PTF is represented by the all the objects presented together before they have been integrated).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the integration technique as disclosed by Juettner in the method disclosed by Prologo and Ashley. It would have been obvious because integration testing allows for testing how the program parts will interact when each part is integrated (column 3, line 39-40).

As per claim 11, Prologo discloses a method for implementing autonomic testing and verification of software fix programs wherein said isolation manager saves test results in a results table for each applied iteration to the software product (column 5, lines 50-53) and displays said test results to the user (column 5, lines 64-67; Note: using email is a way to display the results to the user).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prologo and Ashley as applied to claims 1 and 2 above, and further in view of Juettner and Wygodny et al. (U.S. Patent No. 5,657,438).

Prologo and Ashley are relied upon for reasons stated in the previous section.

As per claim 6, Prologo and Ashley fail to disclose an isolation manager.

Juettner discloses a method for implementing autonomic testing and verification of software fix programs includes providing an isolation manager for receiving said software fix program including said program temporary fix (PTF) and for sequentially applying each patch or program of said multiple patches or programs of said software fix program or said program

temporary fix (PTF) to said software product; and wherein said isolation manager applies a patch or program of the multiple patches or programs of said software fix program or said program temporary fix (PTF) to said software product (column 1, line 64- column 2, line 13; column 2, lines 39-40; Note: In this integration technique, each object (or subprogram) is integrated sequentially and then tested. The PTF is represented by the all the objects presented together before they have been integrated).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the integration technique as disclosed by Juettner in the method disclosed by Prologo and Ashley. It would have been obvious because integration testing allows for testing how the program parts will interact when each part is integrated (column 3, line 39-40).

Prologo, Ashley and Juettner fail to disclose a method where the user is notified of said program and waits for a user option of next or done.

Wygodny discloses notifying the user of said patch or program applied to said software product, and waits for a user option of next or done (column 2, line 64- column 3, line 5). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the user option as disclosed by Wygodny in the method described by Prologo, Ashley, and Juettner. It would have been obvious because Wygodny allows the user to select the test most desired (column 2, line 64- column 3, line 5).

As per claim 7, Wygodny discloses a method for implementing autonomic testing and verification of software fix programs wherein said isolation manager, responsive to receiving said next user option, applies a next program of the multiple programs of said software fix

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program or said program temporary fix (PTF) to a software product, notifies the user of the next patch or next program applied to the software product, and waits for a user option of next or done (column 2, line 64- column 3, line 5).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prologo, Ashley, and Juettner as applied to claims 10 and 11 above, and further in view of Gross et al. (U.S. Patent No. 5,371,883).

Prologo, Ashley, and Juettner are relied upon for reasons stated in the previous section.

Prologo, Ashley, and Juettner fail to disclose an isolation manager that compares the test results.

Gross discloses a method for implementing autonomic testing and verification of software fix programs wherein said isolation manager compares all test results to each other test result to identify a problem patch or program (column 7, lines 58-68; Note: since it is also shown that error recover is performed at the control program (column 8, lines 1-9), it is understood that the test results are used to identify a problem program).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the test result comparison as described by Gross in the method described by Prologo, Ashley, and Juettner. It would have been obvious because Gross would allow all the tests to be compared which would help in determining the faulty programs are interacting (column 7, lines 58-68).

Claims 13, 14, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juettner in view of Prologo.

As per claim 13, Juettner discloses an apparatus for implementing autonomic testing and verification of software fix programs including program temporary fixes (PTFs) comprising:

an isolation manager receiving a PTF containing a plurality of programs (column 1, line 64- column 2, line 13; column 2, lines 39-40);

said isolation manager sequentially applying each program of said multiple programs of said PTF to said software product; and for testing said software product responsive to each said sequentially applied program (column 1, line 64- column 2, line 13; column 2, lines 39-40).

Juettner fails to disclose a user interface for receiving inputs and reporting results and providing test results to a user responsive to said testing of said software product.

Prologo discloses a user interface coupled to said isolation manager for receiving user input selections and reporting results to a user (column 2, lines 45-47; column 6, lines 4-34; Note: the user interface can input where the error results are sent which would including the CPU from which the user interface is on); and providing test results to a user responsive to said testing of said software product (Prologo, col. 5, lines 57-59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the user interface as described by Prologo in the apparatus described by Juettner. It would have been obvious because the user interface allows a user to control different aspects of the tests to be performed (column 6, lines 4-34).

As per claim 14, Juettner discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is responsive to receiving a set of PTFs, for sequentially applying each program contained in said set of PTFs to said

software product, and for testing said software product responsive to each said sequentially applied program (column 1, line 64- column 2, line 13; column 2, lines 39-40).

As per claim 17, Juettner discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is responsive to receiving a test program; for sequentially applying iterations of each program of the multiple programs of the PTF and different combinations of the programs to the software product and for calling said test program for each applied iteration to the software product (column 1, line 64- column 2, line 13; column 2, lines 39-40).

As per claim 18, Prologo discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is responsive to receiving expected test results for comparing test results with said expected test results for each applied iteration (column 1, line 60- column 2, line 12) and for notifying the user when said test results are different from said expected test results (column 5, lines 64-67; Note: using email is a way to display the results to the user).

As per claim 19, Prologo discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is adapted for saving test results in a results table for each applied iteration to the software product (column 5, lines 50-53) and for displaying ,said test results to the user (column 5, lines 64-67; Note: using email is a way to display the results to the user).

Claims 15 and 16 are rejected under 35 U.S.C. 103(a)as being unpatentable over Prologo and Juettner as applied to claim 13 above, and further in view of Wygodny.

Prologo and Juettner are relied upon for reasons stated in the' previous section.

As per claim 15, Prologo and Juettner fail to disclose a method where the user is notified of said program and waits for a user option of next or done.

Wygodny discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is responsive to a manual isolation user option, for applying a program of the multiple programs of the PTF to said software product, for notifying the user of the program applied to said software product, and for waiting for a user option of next or done. (column 2, line 64- column 3, line 5).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the user option as disclosed by Wygodny in the apparatus described by Prologo and Juettner. It would have been obvious because Wygodny allows the user to select the test most desired (column 2, line 64- column 3, line 5).

As per claim 16, Wygodny discloses an apparatus for implementing autonomic testing and verification of software fix programs wherein said isolation manager is responsive to receiving said next user option for applying a next program of the multiple programs of the PTF to said software product, for notifying the user of the next program applied to the software product, and for waiting for a user option of next or done (column 2, line 64- column 3, line 5).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prologo and Juettner as applied to claim 19 above, and further in view of Gross. Prologo and Juettner are relied upon for reasons stated in the previous section.

Prologo and Juettner fail to disclose an isolation manager that compares the test results.

Gross discloses an apparatus for implementing automatic testing and verification of software fix programs wherein said isolation manager compares all test results to each other test

result to identify a problem patch or program (column 7, lines 58-68; Note: since it is also shown that error recover is performed at the control program (column 8, lines 1-9), it is understood that the test results are used to identify a problem program).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the test result comparison as described by Gross in the method described by Prologo, Ashley, and Juettner. It would have been obvious because Gross would allow all the tests to be compared which would help in determining the faulty programs are interacting (column 7, lines 58-68).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A. Lohn whose telephone number is (571) 272-3661. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAL



SCOTT BADERMAN  
SUPERVISORY PATENT EXAMINER